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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,146

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Guerino G. Sacripante

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EXAMINER

MCCULLEY, MEGAN CASSANDRA

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

07/12/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction27074@oliff.com

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<b>Office Action Summary</b>	<b>Application No.</b> 10/765,146	<b>Applicant(s)</b> SACRIPANTE ET AL.	
	<b>Examiner</b> Megan McCulley	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5-7,10,11,13-21,23-31 and 34-44 is/are pending in the application.
- 4a) Of the above claim(s) 17-20 and 24-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-7, 10, 11, 13-16, 21, 23, 30, 31, 34-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Note***

The status modifier of claim 6 is incorrect: it should be “previously presented” instead of “original.”

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 39 and 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no disclosure in the specification that the process can further comprise freezing the aggregation of the particles in the dispersion by pH adjustment once at a desired aggregated particle size. A person having ordinary skill in the art would not recognize that the changes in pH disclosed in example 1 of the specification achieve freezing the aggregation of the particles. There is nothing in example 1 or paragraph 77 to suggest that the aggregation of the particles freezes or how to achieve freezing aggregation of the particles based on pH adjustment. A person having ordinary skill in the art would not know in what way to adjust the pH in order to achieve freezing of aggregation. However, if it is applicant's contention that a

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person having ordinary skill in the art would recognize that these pH adjustment steps found in paragraph 77 would inherently lead to aggregation freezing, a declaration signed by an inventor or inventors could be submitted.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3, 5-7, 21, 30, 31, 34-39, 41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel et al. (U.S. Pat. 6,210,853) in view of Wang et al. (US 2002/0107306)

Regarding claims 1 and 3: Patel et al. teaches an emulsion process (abstract) for forming a curable powder/toner comprising in an aqueous dispersion/latex, mixing resin particles and a coagulant/aggregating agent (abstract), aggregating particles by heating at a temperature below the T<sub>g</sub> of the resin (abstract), coalescing by heating at a temperature above the T<sub>g</sub> of the resin (abstract), and removing/isolating the particles/toner (abstract).

Patel et al. does not teach the resin is epoxy or the curing agent is the elected polyfunctional amine, nor a curing agent is added after coalescing. However, Wang et al. teaches making epoxy particles in an aqueous dispersion (abstract) with an amino functional groups on a reactive cross linker (para. 22) added after coalescing (para. 41 and 53). Patel et al. and Wang et al. are analogous art since they are both concerned with the same field of endeavor, namely making resin particles with aggregation agents

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in aqueous dispersions. At the time of the invention a person having ordinary skill in the art would have found it obvious to combine the epoxy-amine system of Wang et al. with the process of Patel et al. and would have been motivated to do so since it makes protective powder coatings that resist stains (Wang et al. para. 8). At the time of the invention a person having ordinary skill in the art would have found it obvious to combine the addition of the curing agent as in Wang et al. and would have been motivated to do so in order to have a curable powder coating.

Regarding claims 5 and 6: Patel et al. teaches mixing with a colorant such as a pigment (col. 1 lines 45-49) before the aggregation step (abstract).

Regarding claim 7: The result of isolating the particles/toner of Patel et al. is a curable powder.

Regarding claim 21: The combination above lays out motivation for including the epoxy resin, namely to make a protective powder coating that resists stains.

Regarding claim 30: Patel et al. teach dry blending with an additive (col. 8 lines 1-5).

Regarding claim 31: Patel et al. teach dry blending additives such as charge control additives (col. 9 lines 1-5).

Regarding claim 34: Patel et al. teach resin in an amount of 40-90 % (col. 11 lines 15-25).

Regarding claim 35: Patel et al. teach the colorant in an amount of 2-12 % (col. 12 lines 20-30).

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Regarding claim 36: Patel et al. teaches a geometric size distribution, GSD, from 1.15-1.24 (col. 4 line 63), which overlaps the claimed range.

Regarding claim 37: Patel et al. teaches a styrene-acrylate resin/poly(styrene-acrylate) (col. 6 line 26).

Regarding claim 38: Patel et al. teach cyan, magenta and yellow pigments (col. 11 line 54).

Regarding claim 39: Patel et al. teaches adjusting the pH after aggregation (abstract), which would freeze at the desired aggregated particle size.

Regarding claims 41 and 43: Patel et al. teaches the coagulant/aggregating agent can be polyaluminum chloride (col. 12 lines 50-55).

Claims 10, 11, 13-16, 23, 40, 42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel et al. (U.S. Pat. 6,210,853) in view of Wang et al. (US 2002/0107306)

Regarding claims 10 and 11: Patel et al. teaches an emulsion process (abstract) for forming a curable powder/toner comprising in an aqueous dispersion/latex, mixing resin particles and a coagulant/aggregating agent (abstract), aggregating particles by heating at a temperature below the T<sub>g</sub> of the resin (abstract), coalescing by heating at a temperature above the T<sub>g</sub> of the resin (abstract), and removing/isolating the particles/toner (abstract).

Patel et al. does not teach the resin is epoxy or the curing agent is the elected polyfunctional amine, nor a curing agent is added to the dispersion. However, Wang et

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al. teaches making epoxy particles in an aqueous dispersion (abstract) with amino functional groups on a reactive cross linker (para. 22) added during the dispersion (para 22). At the time of the invention a person having ordinary skill in the art would have found it obvious to combine the epoxy-amine system of Wang et al. with the process of Patel et al. and would have been motivated to do so since it makes protective powder coatings that resist stains (Wang et al. para. 8). At the time of the invention a person having ordinary skill in the art would have found it obvious to combine the addition of the curing agent as in Wang et al. and would have been motivated to do so in order to have a curable powder coating.

Regarding claims 13 and 14: Patel et al. teaches mixing with a colorant such as a pigment (col. 1 lines 45-49) before the aggregation step (abstract).

Regarding claim 15: The result of isolating the particles/toner of Patel et al. is a curable powder.

Regarding claim 16: Patel et al. teach the particles obtained have a volume average diameter of 3-10 microns (col. 6 lines 65-67).

Regarding claim 23: The combination above lays out motivation for including the epoxy resin, namely to make a protective powder coating that resists stains.

Regarding claim 40: Patel et al. teaches adjusting the pH after aggregation (abstract), which would freeze at the desired aggregated particle size.

Regarding claims 42 and 44: Patel et al. teaches the coagulant/aggregating agent can be polyaluminum chloride (col. 12 lines 50-55).

***Response to Arguments***

Applicant's arguments filed March 12, 2010 have been fully considered but they are not persuasive.

A) Applicant's argument that a person having ordinary skill in the art would not recognize a reasonable expectation of success in combining the features and steps of Wang et al. into the process of Patel et al. is not persuasive. While Patel et al. uses different resins than Wang et al., the processes of each are so similar that a person having ordinary skill in the art would recognize a different polymer could be substituted into the process of Patel et al. Wang et al. teaches mixing epoxy resin with an aggregating agent in an aqueous dispersion, aggregating (para. 10), coalescing (para. 41), adding a crosslinker (para. 22, 53) and removing the water (para. 96). Therefore, since the steps of the process are similar, and Wang et al. achieves making curable particles with an epoxy resin, a person having ordinary skill in the art would recognize a reasonable expectation of success in substituting a curable epoxy resin for the polymer in Patel et al.

B) Applicant's argument that the processes of Wang et al. and Patel et al. are different is not persuasive. It is also not persuasive that Wang et al. does not describe an emulsion aggregation process. Wang et al. does not disclose that the disclosed process is not an emulsion aggregation process. Wang et al. forms the particles in an aqueous medium/latex. An emulsion is a dispersion of an immiscible liquid in water, which is what is occurring in the process described in Wang et al., para. 10. As set forth in part A above, the claimed steps are substantially included in the process of Wang et



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al. If there are additional features of an emulsion aggregation process that would distinguish over Wang et al., they should be claimed to overcome the prior art.

C) Applicant's argument that there is no reason for combining the references is not persuasive. Patel et al. makes a toner which is used for printing. Wang et al. establishes that printed images can become stained or damaged from water and aqueous solutions (para. 6) as well as fingerprints and spills (para. 8). Therefore, there is a need established in the prior art for printed images to resist stains, and a person having ordinary skill in the art seeing this need would turn to Wang et al. overcome the deficiencies in the prior art.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Megan McCulley whose telephone number is (571)270-3292. The examiner can normally be reached on Monday - Thursday 7:30-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/  
Supervisory Patent Examiner, Art Unit 1796

/M. M./  
Examiner, Art Unit 1796